

REMARKS

Claims 2 through 21 are in this application and are presented for consideration. Claims 2-7 have been amended. Claim 21 has been added. The amended and new claims have been added to further highlight and more clearly point out the important features of the invention.

New claim 21 has been added to set forth further features of the circumferential and longitudinal flutes. These features are not taught nor suggested in the prior art. The wave-shaped pattern of the inking roller in both the longitudinal and circumferential direction is best seen in figures 4 and 5 of the present application. Figure 4 shows the cross-section of two adjacent circumferential flutes 3, and therefore the right to left direction in figure 4 is the longitudinal direction. Figure 5 shows the profile of two adjacent longitudinal flutes 4, and therefore the right to left direction in figure 5 is the circumferential direction.

As one can see from figures 4 and 5, the crest 5 of the wave-shaped pattern is longer in figure 5, the circumferential direction, then in figure 4, the longitudinal direction. Likewise the trough of the wave shaped pattern in the circumferential direction, figure 5, is smaller than the trough in the longitudinal direction, figure 4. This particular wave-shaped pattern is not taught nor suggested in the applied prior art, and therefore the prior art cannot anticipate new claim 21, or cause it to be obvious.

US 4,537,127 (Fadner et al.) discloses an ink metering roller comprising a regular pattern consisting of square recesses, and lands or bearing regions between them. The recesses comprise flat base sections and the lands comprise flat head sections. Fadner discloses a regular pattern which results in an identical shape of the surface of the roller as viewed in both

the longitudinal and circumferential direction. The flat base sections of the recesses and the head sections of the lands result in a pattern as shown in Figures 6 and 7 in Fadner, which cannot be described as wave-shaped but rather has the appearance of a gear wheel.

None of the patterns exhibited by the rollers disclosed in the other references cited by the Office Action result in a roller exhibiting a wave-shaped pattern on its surface as viewed in a longitudinal and a circumferential direction. Thus, the roller as described in new claim 21 is new over the cited prior art.

Independent claims 8 and 15 set forth a first set of flutes that are circumferential flutes, and the claims also set forth a second set of flutes which are longitudinal flutes. The circumferential flutes are set forth as extending predominantly in a circumferential direction, and the longitudinal flutes are set forth as extending predominantly in a longitudinal direction. The Office Action states that Fadner discloses two sets of flutes, and refers to figures 2-4. Applicant has reviewed Fadner, and especially these figures. It appears that these figures show a first set of flutes extending from the lower left to the upper right, and a second set of flutes extending from the lower right to the upper left. Both of these sets of flutes appear to have the same angle, and to be symmetrical with respect to both a rotational axis and circumferential direction of the roller. Applicant finds no disclosure in Fadner that these two sets of flutes are to have different angles, or are not to be a symmetrical.

Applicant acknowledges that each set of flutes in Fadner extend in a direction that is between a longitudinal and a circumferential direction. Therefore each set of flutes in Fadner have both a longitudinal and a circumferential component. Simple geometry indicates that the

more a flute is in the longitudinal direction, the less that flute is in a circumferential direction. Claims 8 and 15 set forth that one set of flutes are predominantly in a circumferential direction, which means that they have a larger circumferential component than a longitudinal component. Claims 8 and 15 also set forth that the other set of flutes are predominately in a longitudinal direction, which means that this other set of flutes have a larger longitudinal component than a circumferential component. The term “predominately” means “for the most part” or “much greater in number or influence”.

The Office Action appears to state that the flutes in Fadner are considered to be both predominately circumferential, and predominately longitudinal depending on how one looks at the roller. As applicant has described above, simple geometry indicates that a flute cannot both be in the most part circumferential, and at the same time be for the most part longitudinal.

Therefore one set of flutes in Fadner cannot be both predominately longitudinal and predominately circumferential. Furthermore since Fadner appears to show both sets of flutes as having the same angle with respect to a rotation axis, the predominant direction of one flute is the same as the predominant direction of another flute. Therefore one set of flutes in Fadner cannot be predominately circumferential while the other is predominately longitudinal.

The Office Action also includes the phrase “depending upon how one looks at the roller”. Applicant does not find this phrase to be significant, since the circumferential and longitudinal directions of the roller will not change “depending upon how one looks at the roller”. Figure 2 of Fadner clearly shows how the flutes are arranged on the roller, and Fadner does not disclose arranging the flutes in any other arrangement, especially “depending upon

how one looks at the roller”. Therefore since one set of flutes cannot be both predominately circumferential and predominately longitudinal, and Fadner only discloses sets of flutes which are symmetrical, Fadner cannot anticipate all the features of the claims 8 and 15. These claims therefore define over the rejection.

Claims 4, 11, 16 and 17 set forth further details with regard to the direction of the two sets of flutes. The rejection acknowledges that Fadner does not explicitly teach these claimed angles. The rejection states that the optimal shape of the flutes would vary depending on the required application, and therefore could best be determined through routine experimentation. The rejection does not indicate where support for this statement can be found in the prior art. Applicant further notes that there are many variables with regard to the dimensions and arrangements of a flute. The Examiner appears to be confusing shape with slope angle, and the two are not necessarily identical. Applicant also finds no disclosure in the prior art to lead a person of ordinary skill to experiment with slope angle. It is only applicant who discloses that slope angle is significant.

Applicant acknowledges that the courts have indicated that one rationale for supporting a conclusion of obviousness is “obvious to try”. Applicant also notes that this rationale is only applicable when “choosing from a finite number of identified, predictable solutions with a reasonable expectation of success”, MPEP 2141 III. The prior art does not identify that slope angle is a solution, therefore a routine experimentation with slope angle does not meet the requirements of “obvious to try”. Furthermore, slope angle is not indicated in the prior art to be a “predictable solution” or to have a “reasonable expectation of success”. Routine

experimentation with slope angle therefore further does not meet the requirements of “obvious to try”. Still further, one can argue that there are an infinite number of possible slope angles which further cause the claims to fail the “finite” requirement of the “obvious to try” rationale.

Claims 2-4, 9-11 and 16-17 are rejected as being obvious over Fadner. This rejection states that a person of ordinary skill would recognize that the optimal shape of the flutes would vary depending upon the required application. However the rejection does not indicate why the person of ordinary skill in the art would recognize this. If this is based on the personal knowledge of the Examiner, applicant respectfully requests that the Examiner give official notice of this personal knowledge.

Applicant finds no teaching nor suggestion in the applied prior art of different applications requiring different shapes of flutes. Therefore a person of ordinary skill would not be led by the applied prior art to vary the shape of the flutes depending on the application.

Furthermore, there are many different ways to vary the shape of flutes. As an example, some of the parameters of a flute that can be changed are: the number of flutes, the number of different sets of flutes, the direction of the different sets of flutes, the width of the flutes, the depth of the flutes, the linearity of the flutes, the spacing between the flutes, and the spacing between intersections of the flutes. Applicant finds no teaching nor suggestion in the applied prior art of changing any of these parameters of flutes. Furthermore, applicant finds no teaching nor suggestion in the prior art of changing any of the parameters set forth in claims 2-4, 9-11, and 16-17. Without any incentive in the prior art that these parameters should or could be varied depending on the required application, a person of ordinary skill would not be

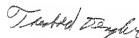
led to determine these parameters through routine experimentation. Therefore the applied prior art does not lead a person of ordinary skill in the art to determine the parameters of the above claims through routine experimentation. These claims therefore further define over the prior art.

The present invention provides an inking roller with a unique design of flutes that improves ink transfer and improves printing quality. The present invention is an improvement over the prior art designs and is therefore worthy of patent protection.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact applicant's representative by telephone to discuss possible changes.

At this time applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
for Applicant,



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Attached: Petition for Two Month Extension of Time

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SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE
IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-
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